

IN THE CLAIMS:

1. (Previously presented) A medical device coating application unit comprising: a dual pneumatic actuated three-way valve comprising two air pressure diaphragms and two valve seats that is dual actuated with no coil spring return mechanism; a solution reservoir containing a coating solution; a solution receptacle; and a solution outlet, said application unit being adapted to (a) withdraw said coating solution from said solution reservoir through said valve and into said solution receptacle when said valve is in a first position and (b) expel said coating solution from said solution receptacle through said valve and through said solution outlet when said valve is in a second position.

2. (Previously presented) A medical device coating application unit comprising: a dual pneumatic actuated three-way valve with no coil spring return mechanism comprising two air pressure diaphragms; two valve seats; a solution reservoir containing a coating solution; a solution receptacle; and a solution outlet, said application unit being adapted to (a) withdraw said coating solution from said solution reservoir through said valve and into said solution receptacle when said valve is in a first position and (b) expel said coating solution from said solution receptacle through said valve and through said solution outlet when said valve is in a second position, wherein said three-way valve comprises a default neutral state in which all valve seats of said three-way valve remain open when supply pressure operating said valve is removed.

3. (Original) The medical device coating application unit of claim 1, wherein said solution receptacle comprises a syringe.

4. (Original) The medical device coating application unit of claim 2, wherein said solution outlet comprises a spray nozzle.

5. (Previously presented) A medical device coating application unit comprising:

a dual pneumatic actuated three-way valve comprising two air pressure diaphragms, two valve seats, first, second and third valve ports and first and second pneumatic ports, wherein said valve is dual actuated with no coil spring return mechanism;

a solution reservoir containing a coating solution in fluid communication with said first valve port;

a solution receptacle in fluid communication with said second valve port; and

a solution outlet in fluid communication with said third valve port,

said application unit being adapted to (a) withdraw said coating solution from said solution reservoir through said valve and into said solution receptacle when said valve is pneumatically operated to a first position and (b) expel said coating solution from said solution receptacle through said valve and through said solution outlet when said valve is pneumatically operated to a second position.

6. (Previously presented) A medical device coating application unit comprising:

a dual pneumatic actuated three-way valve comprising two air pressure diaphragms, two valve seats, first, second and third valve ports and first and second pneumatic ports;

a solution reservoir containing a coating solution in fluid communication with said first valve port;

a solution receptacle in fluid communication with said second valve port; and

a solution outlet in fluid communication with said third valve port,

said application unit being adapted to (a) withdraw said coating solution from said solution reservoir through said valve and into said solution receptacle when said valve is pneumatically operated to a first position and (b) expel said coating solution from said solution receptacle through said valve and through said solution outlet when said valve is pneumatically operated to a second position, wherein each of said pneumatic ports has coupled thereto a supply pressure source that provides a supply pressure within a range of about 300 kilo-Pascals to about 500 kilo-Pascals.

7. (Original) The medical device coating application unit of claim 5, further comprising a first tube having a first diameter coupled to said first pneumatic port and a second tube having a second diameter coupled to said second pneumatic port.
8. (Original) The medical device coating application unit of claim 5, wherein said first and second pneumatic ports are provided with stainless steel threaded inserts.
9. (Original) The medical device coating application unit of claim 5, wherein said three-way valve comprises a stainless steel body.
10. (Original) The medical device coating application unit of claim 5, further comprising one or more disposable fittings.
11. (Previously presented) A medical device coating application unit comprising:
a dual pneumatic actuated three-way valve with no coil spring return mechanism comprising first, second and third valve ports, two air pressure diaphragms, two valve seats, and first and second pneumatic ports;
a solution reservoir containing a coating solution in fluid communication with said first valve port;
a solution receptacle in fluid communication with said second valve port; and
a solution outlet in fluid communication with said third valve port,
said application unit being adapted to (a) withdraw said coating solution from said solution reservoir through said valve and into said solution receptacle when said valve is pneumatically operated to a first position and (b) expel said coating solution from said solution receptacle through said valve and through said solution outlet when said valve is pneumatically operated to a second position, wherein said three-way valve comprises a default neutral state in which all valve seats of said three-way valve remain open when supply pressure operating said valve is removed.
12. (Original) The medical device coating application unit of claim 5, wherein said solution receptacle comprises a syringe.

13. (Original) The medical device coating application unit of claim 5, wherein said solution outlet comprises a spray nozzle.

14. (Original) A method of loading a medical device coating application unit, said method comprising:

- providing the medical device coating application unit of claim 1, wherein said three-way valve is in said first position; and

- withdrawing said coating solution from said solution reservoir and into said solution receptacle.

15. (Original) A method for coating a medical device comprising:

- providing a medical device;

- providing the medical device coating application unit of claim 1, wherein said solution receptacle contains said coating solution and wherein said three-way valve is in said second position; and

- coating said medical device by expelling said coating solution from said solution receptacle, through said solution outlet, and onto said medical device.

16. (Previously Presented) The method of claim 15, further comprising:

- establishing said three-way valve in said first position; and

- withdrawing said coating solution from said solution reservoir and into said solution receptacle, thereby refilling said solution receptacle.

17. (Original) The method of claim 16, further comprising:

- providing an additional medical device;

- establishing said three-way valve in said second position; and

- coating said additional medical device by expelling said coating solution from said solution receptacle, through said solution outlet, and onto said additional medical device.

18. (Original) A method for coating a medical device comprising:

- providing the medical device coating application unit of claim 1;
- establishing said three-way valve in said first position;
- withdrawing said coating solution from said solution reservoir and into said solution receptacle;
- establishing said three-way valve is in said second position; and
- coating a medical device by expelling said coating solution from said solution receptacle, through said solution outlet, and onto said medical device.

19. (Previously presented) A method for coating a medical device comprising:

- providing the medical device coating application unit comprising: a dual pneumatic actuated three-way valve comprising two air pressure diaphragms and two valve seats; a solution reservoir containing a coating solution; a solution receptacle; and a solution outlet, said application unit being adapted to (a) withdraw said coating solution from said solution reservoir through said valve and into said solution receptacle when said valve is in a first position and (b) expel said coating solution from said solution receptacle through said valve and through said solution outlet when said valve is in a second position;
- establishing said three-way valve in said first position;
- withdrawing said coating solution from said solution reservoir and into said solution receptacle;
- establishing said three-way valve in said second position; and
- coating a medical device by expelling said coating solution from said solution receptacle, through said solution outlet, and onto said medical device, said method further comprising maintaining all valve seats of the three-way valve open when the medical device coating application unit is not in use.

20. (Previously presented) A method for coating a medical device comprising:

- providing the medical device coating application unit comprising: a dual pneumatic actuated three-way valve comprising two air pressure diaphragms and two valve seats; a solution reservoir containing a coating solution; a solution receptacle; and a solution outlet, said application unit being adapted to (a) withdraw said coating solution from said solution reservoir

through said valve and into said solution receptacle when said valve is in a first position and (b) expel said coating solution from said solution receptacle through said valve and through said solution outlet when said valve is in a second position;

establishing said three-way valve in said first position;

withdrawing said coating solution from said solution reservoir and into said solution receptacle;

establishing said three-way valve in said second position; and

coating a medical device by expelling said coating solution from said solution receptacle, through said solution outlet, and onto said medical device,

wherein the three-way valve is controlled with a supply pressure source having a supply pressure within a range of about 300 kilo-Pascals to about 500 kilo-Pascals.

21. (Previously presented) The medical device coating application unit of claim 2, wherein said diaphragms return said valve to said default neutral state.

22. (Previously presented) The medical device coating application unit of claim 11, wherein said diaphragms return said valve to said default neutral state.